



RECEIVED

JUN 03 2002

TECH CENTER 1600/2900

Atty Dkt 0342.105  
2302-0342.10  
PATENT

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on 15 May 2002

5/15/02  
Date

Susan LaMont  
Signature

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:

PIZZA

Serial No.: 09/528,682

Group Art Unit: 1631

Filing Date: March 20, 2000

Examiner: M. Borin

Title: IMMUNOGENIC DETOXIFIED MUTANT E. COLI LT-A TOXIN

STATEMENT TO SUPPORT FILING AND SUBMISSION IN ACCORDANCE  
WITH 37 C.F.R. §§ 1.821-1.825

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

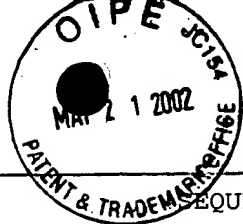
The undersigned hereby states that the content of the attached papers and the computer-readable copy of the Sequence Listing, submitted in accordance with 37 C.F.R. §§ 1.821(c) and (e), respectively, are the same.

Respectfully submitted,

Date: May 15, 2002

By: Dahna S. Pasternak  
Dahna S. Pasternak  
Registration No. 41,411

CHIRON CORPORATION  
Intellectual Property - R440  
P.O. Box 8097  
Emeryville, CA 94662-8097  
Telephone: 650-325-7812  
Facsimile: 650-325-7823



## SEQUENCE LISTING

131  
<110> Pizza, Mariagrazia  
Giuliani, Marzia M  
Rappuoli, Rino

<120> IMMUNOGENIC DETOXIFIED MUTANT E. COLI LT-A-TOXIN

<130> 2302-0342.10

<140> 09/528,682

<141> 2000-03-20

<150> PCT/IB97/01440

<151> 1997-10-30

<150> 09/297,171

<151> 1999-04-27

<160> 4

<170> PatentIn Ver. 2.0

<210> 1

<211> 240

<212> PRT

<213> Escherichia coli

<400> 1

Asn Gly Asp Arg Leu Tyr Arg Ala Asp Ser Arg Pro Pro Asp Glu Ile  
1 5 10 15

Lys Arg Ser Gly Gly Leu Met Pro Arg Gly His Asn Glu Tyr Phe Asp  
20 25 30

Arg Gly Thr Gln Met Asn Ile Asn Leu Tyr Asp His Ala Arg Gly Thr  
35 40 45

Gln Thr Gly Phe Val Arg Tyr Asp Asp Gly Tyr Val Ser Thr Ser Leu  
50 55 60

Ser Leu Arg Ser Ala His Leu Ala Gly Gln Ser Ile Leu Ser Gly Tyr  
65 70 75 80

Ser Thr Tyr Tyr Ile Tyr Val Ile Ala Thr Ala Pro Asn Met Phe Asn  
85 90 95

Val Asn Asp Val Leu Gly Val Tyr Ser Pro His Pro Tyr Glu Gln Glu  
100 105 110

Val Ser Ala Leu Gly Gly Ile Pro Tyr Ser Gln Ile Tyr Gly Trp Tyr  
115 120 125

Arg Val Asn Phe Gly Val Ile Asp Glu Arg Leu His Arg Asn Arg Glu  
130 135 140

Tyr Arg Asp Arg Tyr Tyr Arg Asn Leu Asn Ile Ala Pro Ala Glu Asp  
145 150 155 160

Gly	Tyr	Arg	Leu	Ala	Gly	Phe	Pro	Pro	Asp	His	Gln	Ala	Trp	Arg	Glu
			165						170					175	
Glu	Pro	Trp	Ile	His	His	Ala	Pro	Gln	Gly	Cys	Gly	Asn	Ser	Ser	Arg
			180					185					190		
Thr	Ile	Thr	Gly	Asp	Thr	Cys	Asn	Glu	Glu	Thr	Gln	Asn	Leu	Ser	Thr
		195					200					205			
Ile	Tyr	Leu	Arg	Glu	Tyr	Gln	Ser	Lys	Val	Lys	Arg	Gln	Ile	Phe	Ser
	210					215					220				
Asp	Tyr	Gln	Ser	Glu	Val	Asp	Ile	Tyr	Asn	Arg	Ile	Arg	Asp	Glu	Leu
225					230					235					240

<210> 2  
 <211> 3  
 <212> PRT  
 <213> Escherichia coli

<400> 2  
 Lys Lys Asn  
 1

<210> 3  
 <211> 107  
 <212> PRT  
 <213> Escherichia coli

Asp	Phe	Phe	Thr	Arg	Ala	Leu	Gln	Gln	Ala	Tyr	Glu	Pro	Ile	Glu	Val
1				5					10					15	
Asn	Thr	Asn	Thr	Val	Thr	Gln	Ile	Asn	Gly	Ser	Asn	Glu	Val	Pro	Leu
			20					25					30		
Asp	Gly	Arg	Tyr	Ser	Asn	Phe	Ala	Leu	Ile	Ser	Ala	Glu	Gly	Gly	Met
		35					40					45			
Gln	Asp	Gly	Asp	Leu	Phe	Gly	Thr	Val	Asn	Gln	Ser	Asn	Phe	Pro	Met
	50					55					60				
Ser	Thr	Phe	Glu	Gln	Val	Pro	Asn	Asn	Lys	Glu	Phe	Lys	Gly	Val	Ile
	65				70					75					80
Ser	Ala	Asn	Val	Lys	Tyr	Asp	Met	Asn	Phe	Lys	Lys	Leu	Leu	Arg	Phe
				85					90					95	
Met	Glu	Asp	Asp	Phe	Ile	Gly	Val	His	Gly	Glu					
			100					105							

<210> 4

<211> 110  
<212> PRT  
<213> Escherichia coli

<400> 4

Asp Tyr Phe Thr Val Arg Ile Gln Asp Ala Tyr Glu Pro Ile Ala Asn  
1 5 10 15

Thr Asn Thr Thr Thr Gln Phe Leu Asn Met Gly Asn Glu Val Ala Leu  
20 25 30

Asp Gly Arg Tyr Ser Asn Tyr Ala Leu Ile Ser Ala Glu Gly Gly Met  
35 40 45

Asp Arg Asp Leu Phe Gly Ser Ala Asn Ile Asp Gly Phe Pro Glu Val  
50 55 60

Arg Glu Phe Asn Ser Leu Pro Asn Asn Lys Ala Ser Ser Asp Thr Ala  
65 70 75 80

Ser Leu Asn Lys Gln His Asp Ala Asp Phe Lys Lys Tyr Ile Lys Leu  
85 90 95

Leu Ile Asn Asn Asp Gly Phe Phe Ser Asn Asn Gly Gly Lys  
100 105 110

B1  
cont